SECTION III - ALTERNATIVE CONSERVATION SYSTEMS

Introduction

An Alternative Conservation System (ACS) is defined as a system of conservation practices, which also addresses erosion control, and will provide a **substantial reduction** in soil erosion from the **pre-plan** level or permit no **substantial increase** in soil erosion from the erosion occurring under native vegetation. An ACS does not reduce soil loss to the tolerance level (T) as expressed in tons/acre/year. Alternative Conservation Systems are further defined in the National Food Security Act Manual (NFSAM) Part 512. An ACS will be based on technically feasible and practical solutions and may be influenced by unique soil and/or crop situations.

ACS's are developed for highly erodible land used for the production of annually planted crops. Applicable soils are those that have an erosion index (EI) of eight or greater for wind and/or sheet and rill erosion. The EI is calculated for wind as the Climatic Factor (C) times the Soil Erodibility Factor (I) divided by the Soil Loss Tolerance Factor (T). For sheet and rill erosion, the EI is calculated as the Rainfall Factor (R) times the Soil Erodibility Factor (K) times the Length/Slope Factor (LS) divided by the T Factor.

The **pre-plan** condition and resultant erosion level for an ACS is defined as the condition that existed before conservation measures were applied. For Utah, **substantial reduction** is defined as 75 percent reduction of the potential erodibility, **not to exceed (NTE)** from 2 to 4 times the soil loss tolerance level for the predominantly highly erodible map unit in the HEL field as shown in the table below and in the following pages:

Soil Loss Tolerance	**Formula for Determining Max. Allowable Erosion**	
	Wind	**Sheet and Rill**
1	C*I*0.25/100 NTE 1*4	R*K*LS*0.25 NTE 1*4
2	C*I*0.25/100 NTE 2*3	R*K*LS*0.25 NTE 2*3
3	C*I*0.25/100 NTE 3*2.5	R*K*LS*0.25 NTE 3*2.5
4	C*I*0.25/100 NTE 4*2.25	R*K*LS*0.25 NTE 4*2.25
5	C*I*0.25/100 NTE 5*2	R*K*LS*0.25 NTE 5*2

Substantial increase is defined as any soil erosion level that is greater than 25 percent of the present erodibility levels under native vegetation, not to exceed the soil loss tolerance of the predominantly HEL mapping unit in the HEL field. Any conservation practice or practices that when applied individually or in combination that reduce erosion to the defined level will be considered an ACS.